



FREMONT-WINEMA NATIONAL FOREST
Lakeview Ranger District
2014 Monitoring Report



Implementation Dent Creek Allotment.

| Date | Pasture/Key Area | Utilization | | | | Residual Greenline Stubble Height (RGSB) | |
|----------------------------|--|---------------|------------|------------------|------------|--|-------------|
| | | Allowable Use | | 2014 Actual Use* | | Target (or >) | 2014 Actual |
| | | Floodplain | Dry Meadow | Floodplain | Dry Meadow | | |
| July 9 th † | Dent Creek Dent Creek | 40% | 50% | VE 5% | VE 5% | 6" | 6" |
| September 18 th | Dent Creek Dent Creek | 40% | 50% | CW 90% VE 60% | NM | 6" | 4" |
| July 9 th † | Dent Creek Secret Valley | 40% | 50% | NM | NM | 6" | 6" |
| September 18 th | Dent Creek Aspen Site 2 | 40% | 50% | VE 50% | NM | 6" | NM |
| September 18 th | Dent Creek Aspen Site 3 | 40% | 50% | VE 60% | NM | 6" | NM |
| September 18 th | Dent Creek Aspen Site 4 | 40% | 50% | VE 80% | NM | 6" | NM |
| September 2 nd | Grasshopper Flat Butcher Flat above old exclosure | 35% | 45% | VE 45% | NM | 6" | 3" |
| September 2 nd | Grasshopper Flat Butcher Flat within old exclosure | 35% | 45% | VE 65% | VE 50% | 6" | 3" |
| September 18 th | Grasshopper Flat Aspen Site 1 | 35% | 45% | NM | VE 60% | 6" | NM |

† Indicates monitoring completed by permittee representative

Methods of determining use: VE – Visual Estimate, PP – Paired Plot, HWC – Height Weight Curve, NM – Not measured, NA – Not Applicable

Dent Creek Allotment. Cont

| Date | Pasture/Key Area | Utilization | | | | Residual Greenline Stubble Height (RGSB) | |
|----------------------------|---------------------------|---------------|-----|------------------|-----|---|----------------|
| | | Allowable Use | | 2014 Actual Use* | | Target (or >) | 2014 Actual |
| August 11 th † | Dry Valley Sheep Wagon | 45% | 50% | NM | NM | 6" | 7" |
| September 18 th | Dry Valley Sheep Wagon | 45% | 50% | NM | 20% | 6" | NM |

† Indicates monitoring completed by permittee representative. See attached.

Methods of determining use: VE – Visual Estimate, PP – Paired Plot, HWC – Height Weight Curve, NM – Not measured, NA – Not Applicable

Dent Creek Pasture

A representative of the permittee measured RGSB on July 9th at the key area along Dent Creek. This was 11 days before the off date. It was noted that there was little use on the willows at that time. Measurements of RGSB indicated compliance with standards set at 6". Photos were taken at the key area.

On September 18th measurements of RGSB were taken and a paired plot method was used to assess utilization at the Dent Creek key area. RGSB was measured at 4", below the required standard. Utilization was visually estimated at 60%. This estimate was obtained walking along Dent Creek 15 minutes above and 15 minutes below the key area. It was noted that willows showed significant hedging. All species along the creek were grazed in a homogeneous manner, including unpalatable species such as *Juncus balticus*. The paired plot resulted in a measurement of 90% utilization. I believe that is an accurate measurement in the immediate key area. However, taking into consideration the visual estimate along other sections of Dent Creek, I believe it is closer to 70% utilization overall. Photos were taken of the key area.

In addition to monitoring at the key area, there were three aspen monitoring sites within the Dent Creek Pasture where monitoring was completed by USFS personnel. Utilization cages, aspen exclosures and game cameras were installed to monitor timing of cattle preference changes over the course of the season.

Aspen Monitoring Site 2 – Overall area utilization was visually estimated at 50% and noted that it appeared less than key area at Dent Creek. There was use on aspen that if monitored I believe would have shown a greater than 25% use on leader growth for the season. Photos taken.

Aspen Monitoring Site 3 – Overall area utilization was estimated at 60%. A cow/calf pair was present and headed toward Secret Valley. This was two months after the authorized off date.

There was considerable use on aspen that if monitored I believe would have shown a greater than 25% use on leader growth for the season. Photos taken.

Derek Herndon was called regarding the pair still present. He was to go out on the 19th to remove the cattle.

Aspen Monitoring Site 4 – Overall area utilization was estimated at 80%. There was considerable use on aspen that if monitored I believe would have shown a greater than 25% use on leader growth for the season.

A representative of the permitted measured RGSH on August 23rd at the key area in Secret Valley. At that time measurements showed compliance with RGSH standards at 6”.

USFS personnel did not conduct monitoring at the Secret Valley key area.

Dent Creek Pasture

Dent Creek

September 18th, 2014







**Dent Creek Pasture
Aspen Monitoring Site 2
September 18th, 2014**



Dent Creek Pasture
Aspen Monitoring Site 3
September 18th, 2014



Grasshopper Pasture

On September 2nd measurements of RGS_H were taken both at the old key area on Butcher Flat and within the non-functional enclosure at Butcher Flat. Visual estimates of utilization were completed in both areas. RGS_H was measured at 3" at both locations, below the required standard. Utilization was visually estimated at 45% for the *Carex nebrascensis*/*Juncus balticus* sites at the old key area. Within the non-functional enclosure utilization was estimated to be 65% in the flood plain and 50% in the dry meadow. Grazing was homogeneous and there were indications of active erosion. No seed heads were present in the flood plain. Pictures were taken.

Implementation reach markers and utilization cages as well as effectiveness riparian scorecard monitoring plots were established at Butcher Flat.

In addition to monitoring at the key area, there was one aspen monitoring sites within the Grasshopper Pasture where monitoring was completed by USFS personnel. A utilization cage, aspen exclosure and game camera was also installed to monitor timing of cattle preference changes over the course of the season.

Aspen Monitoring Site 1 – Overall area utilization was estimated at 60% in the dry meadow. There was 100% browse of leaders on all trees less than 4' and on all branches less than 4' on taller trees. The stands present have a drastic high lines visual and are all even aged with no age diversity. Within the exclosure aspen trees show expected leader growth for year. Photos taken.

Grasshopper Flat Pasture
Butcher Flat – Old Key Area
September 2nd, 2014







Grasshopper Flat Pasture
Butcher Flat – old exclosure
September 2nd, 2014





**Grasshopper Flat Pasture
Aspen Monitoring Site 1
September 2nd, 2014**







Dry Valley (Red Rock) Pasture

A representative of the permittee measured RGSH on August 23rd at the key area Sheep Wagon. This was 2 days before the off date. At that time measurements showed compliance with standards at 6" RGSH. Photos were taken at the key area.

On September 18th Sheep Wagon key area was visited by USFS representatives. Visual estimates of utilization were completed and indicated use at 20% in the dry meadow. Aspen utilization was below 25% of leaders grazed. Concern regarding the spring channel was noted. Photos were taken.

This area is also Aspen Monitoring Site 5. An exclosure that was erected by the wildlife program is still in place.

Dry Valley (Red Rock) Pasture

Sheepwagon

September 18th, 2014





Quartz Upper and Lower Pastures

No monitoring was conducted on the Quartz Pastures. On July 27th, 10 days after the off date, 3 pair of cattle were observed in the Upper Quartz Pasture. On July 29th Derek Herndon was contacted and told they needed to be moved within 3 days. Derek indicated he would move them in a day and that they were left to account for young calves. He was told that in the future move dates need to be adhered to and if this would be an issue in future the move date would need to be adjust to account for this. On August 3th the cattle were still present. Derek was called on August 4th and informed this would be considered a non-compliance issue for unauthorized use. A USFS personnel inspected the pasture on August 5th and the cattle were moved.

Howard Creek Pasture

No monitoring was completed.

Implementation Monitoring Summary:

Standards were not met in the Dent Creek and Grasshopper Pastures. Unacceptable use on aspen, which was brought to permittees attention after the 2012 and 2013 grazing seasons, continues. Unauthorized use noted up to two month after off dates. There is a disparity between the measurements taken by the permittee representative and USFS personnel. It is probable that this has to do with the timing of measurements.

In 2013 and 2014 changes to management were suggested by USFS to alleviate issues with aspen use. The permittee came back with alternative plans both years that included increased riding and herding as well as some changes to numbers. In both instances the deciding official choose to implement the permittee alternatives. In the Dry Valley Pasture the permittee proposed date and number changes as well as their increase efforts seem to be having the desired effect. However in both the Dent Creek and Grasshopper Flat Pastures end of season conditions

indicated that the management was not successful for 2014. The history of the management before 2006 as well since 2006 indicates that there is a larger allotment management issue that we keep trying to address at a pasture level. It has resulted in issues being moved from place to place on an annual basis.

It is still unclear as to if there is one reason the management of the allotment is not allowing compliance with standards and attainment of resource objectives. I believe that stragglers are part of the issue and that there may be a capacity issue. The dates may also be an issue. The off date may be too late to account for the primary forage becoming unpalatable and the inevitable turn of preference to browse species such as aspen and to concentration of cattle in areas such as springs and seeps. When considering the total available forage in an area, the timing of grazing as it relates to the palatability of plant communities/individual species should be considered. I also believe the effects of changes to the environmental conditions are being seen faster at the lower elevation allotments, such as Dent Creek. The need to change management, including numbers, season of use and specific pasture dates should be considered as we prepare for the upcoming analysis.

In many ways I believe the efforts of the permittees may be lost on the limitations of the current management in place and both current and potential environmental/ecologic conditions.

Past issues in the allotment include

1. Inability to meet allowable use standards.
2. Unacceptable impacts to aspen
3. Unauthorized use by cattle permitted on allotment 1-2 months past the off date.
4. Unauthorized construction of fence across USFS lands
5. Restricting public access to USFS lands

Non- compliance History

- a. 2012 season Discussion – unacceptable impacts to aspen stands
- b. 2013 season Discussion – unacceptable impacts to aspen stands

Recommendations:

Issue non-compliance warning for 2014 for utilization and unauthorized use. If standards are not complied with in 2015, a 10% reduction will occur in 2016 and 2017. This would be in place for the Dent Creek, Grasshopper and Dry Valley Pastures.

2015

Based on current environmental conditions, last years end of season conditions and the outlook for the upcoming season, it is recommended we work with permittee to agree to a shortened time period on the allotment. This would allow movement through the pastures in a quicker manner and hopefully avoid impacts cause by both overutilization and forage unpalatability. Continue with increased on the ground management.

- Authorize 337 cow/calf pair from 5/26 – 8/25

It is recommended that we give the permittee a trigger to adhere to regarding use on aspen. It would require moving the cattle form the current pasture when they first see the cattle starting to graze the aspen. This would give the permittee time to gather the cattle before impacts to the aspen before unacceptable.

Effectiveness - Dent Creek Allotment.

Riparian Classification and Status Plots - Notes and analysis by Karen Zamudio, retired USFS Ecologist attached.

Condition and Trend Data – results are not reported here due to the fact that they need to be re-scored using most recent classification handbook available.

Dent Creek Pasture

Dent Creek Pasture has four Riparian Classification and Status Plots. All were established in development of the scorecards. F2002 has a baseline and a re-read. In 1995 the plot scored MODERATE, in 2009 this plot scored LOW. The downward trend can be tied back to a decrease in rooting depth and an increase in bare ground. Plant vigor is decreasing, species composition is moving away from potential natural.

Plots F 2001, F 2003 and F 2004 have baseline data from 1995. Scores were moderate and high to PNC. No rereads have been completed.

| Pasture Key Area | Veg Type | Baseline | Re-read | Trend |
|---------------------|---------------|----------|---------|----------|
| Dent Creek F2001 | CANE | 1995 | | |
| | | M | | |
| Dent Creek F2002 | Mesic Gram | 1995 | 2009 | downward |
| | | M | L | |
| Dent Creek F2003 | Mesic Gram | 1995 | | |
| | | H | | |
| Dent Creek F2004 | Mesic Gram | 1995 | | |
| | | M | | |

There are six Condition and Trend Parker 3 Step plots in the Dent Creek Allotment. All are in plant communities relevant to range management needs. CT # 1 was established in 1957 and re-read twice. Most recently in 1981. CT # 2 was established in 1957 and re-read in 1981. It was most recently classified into two distinct plant community types. CT # 5 was established in 1955 and re-read twice. Most recently in 1981. CT # 7 was established in 1855 and re-read twice, most recently in 1981. Ct # 8 was established in 1963 and has not been re-read. CT # 9 was established in 1961 and has not been re-read.

Grasshopper Pasture

There is one Riparian Classification and Status plot established in the Grasshopeer Pasture. The plot was scored as low at baseline reading in 2014. The percentage of bare ground as well as the species composition were the greatest influences over the score, both low in similarity to PNC.

| Pasture Key Area | Veg Type | Baseline |
|------------------|----------|----------|
| Grasshopper Flat | CANE | 2014 |
| | | L |

There are two Condition and Trend Parker 3 Step plots in the Grasshopper Pasture. Both are in dry meadow plant communities. CT # 4 was established in 1961 and has not been re-read. CT # 6 was established di in 55 and has been re-read three times. The most recent data collected shows a downward trend from good to poor.

Dry Valley (Red Rock) Pasture

There are two Riparian Classification and Status plot sin the Dry Valley Pasture. In 1996 plot F2058 scored MODERATE, in 2014 this plot scored LOW. The downward trend can be tied back to a decrease in rooting depth and an increase in early seral species. The rooting depth in 1996 was based on one sample, in 2014 on nine samples. It is possible the 1994 rooting depth could have scored lower if more samples had been acquired. However, the overall score would have remained moderate based on the other plot attributes.

Plot F2008 has only baseline data with low similarity to PNC. Bare ground and rooting depth rated as low was most influential on the score. Species composition was moderate.

| Pasture Key Area | Veg Type | Baseline | Re-Read | Trend |
|---------------------|-------------------------|----------|---------|----------|
| Dry Valley F2058 | CANE | 1996 | 2014 | downward |
| | | M | L | |
| Dry Valley F2008 | Cold Salix CANE/CAPE | 1995 | | |
| | | L | | |

There are two Condition and Trend Parker 3 Step plots in the Dry Valley Pasture. Both of them, CT # 3 and CT # 10, were determined to be on what is now private land. CT # 3 was last read as baseline in 1963 and CT # 10 was read as baseline in 1961.

Effectiveness Monitoring Summary:

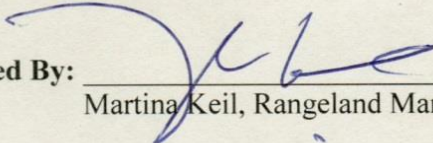
Within the Dent Creek Allotment, two long term monitoring plots have been re-read in recent years. Both of those show a downward trend in ecological condition. In addition, the most recently established plot is scored at low similarity to PNC. Yearly variations in environmental conditions alone would not explain the changes to the specific composition or rooting depth. I believe the long-term data warrants re-evaluation of the current management on the allotment and a closer look at other factors influencing the ecology of the plant communities.

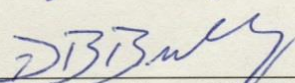
2015 -2017

- Additional verification of management as it relates to overall allotment desired condition should be completed in future. NEPA for this allotment is not yet completed and this data is necessary for range analysis.
 - Re Read Riparian Plots

- 1995 F2001 Dent Creek – CANE
 - 1995 F2003/F2004Dent Creek – Mesic Gram (one of the two)
 - 1995 F2008Dry Valley - Cold Salix CANE/CAPE
- Re-read and convert to Nested Frequency the relevant CT plots on the allotment.
 - Discuss need to establish scorecard plots in Upper Quartz, Lower Quartz and Howard Creek Pastures
- Meet with Stream Survey crew to discuss how vegetation data and stream channel data may or may not relate.

These recommendations for monitoring are made with the understanding that if staffing remains at the current level they might not be possible to implement. Other priorities may also influence staff ability to conduct recommended monitoring.

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Approved By:  Date: 5/7/15
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